



October 2000

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ELECTRIC UTILITIES

Industry Outlook

01-0628
IP 3.4
1/3/02

Company	Current Rating	Date Changed	1999 Rating	Date Changed	1998 Rating	Date Changed	1997 Rating	Date Changed	1996 Rating	Date Changed
Alabama Power Company	A1		A1		A1		A1		A1	
<9>AmerenCIPS	Aa2		Aa2		Aa2	Feb-98	Aa1		Aa1	
<9>AmerenUE	Aa3		Aa3		Aa3	Feb-98	A1		A1	
Appalachian Power Company	A3		A3		A3		A3		A3	May-96
Arizona Public Service Company	Baa1		Baa1		Baa1		Baa1		Baa1	
Atlantic City Electric Company	A3		A3		A3		A3		A3	
Avista Corp.	Baa1	Jul-00	A3		A3		A3		A3	
Baltimore Gas & Electric Company	A1		A1		A1		A1		A1	
Black Hills Corporation	A1		A1		A1		A1		A1	
Boston Edison Company*	A1	Nov-99	A3	Aug-99	Baa1	Jul-98	Baa2		Baa2	
Cambridge Electric Light Company*	A2	Nov-99	Baa2		Baa2		Baa2		Baa2	
Canal Electric Company	WR		WR	Dec-98	Baa1		Baa1		Baa1	
Carolina Power & Light Company	A2		A2		A2		A2		A2	
Central Hudson Gas & Electric Corporation	A2		A2		A2	May-98	A3		A3	
Central Illinois Light Company	A2	Oct-99	Aa2		Aa2		Aa2		Aa2	
Central Maine Power Company*	A3	Jun-00	Baa3		Baa3		Baa3	May-97	Baa2	
Central Power and Light Company	A3		A3		A3		A3	Apr-97	A2	
Central Vermont Public Service Company+	"ba1"		"ba1"	Aug-99	"baa2"		"baa2"		"baa2"	
Cincinnati Gas & Electric Company	A3		A3		A3		A3		A3	
<10> Cleco Utility Group	A2		A2		A2		A2		A2	
Cleveland Electric Illuminating Company	Baa3	Sep-00	Ba1		Ba1		Ba1	Aug-97	Ba2	
Columbus Southern Power Company	A3		A3		A3		A3		A3	Aug-96
Commonwealth Edison Co.	Baa2		Baa2		Baa2		Baa2		Baa2	
Connecticut Light & Power Company, The	Baa3		Baa3	May-99	Ba2	Jul-98	Ba2	Dec-97	Baa3	Oct-96
					Ba3	Apr-98	Ba1	Apr-97	Baa2	May-96
Consolidated Edison Company of NY Inc.*	A1		A1		A1		A1		A1	
Consumers Energy Company	Baa3		Baa3		Baa3		Baa3		Baa3	
Dayton Power & Light Company	A2	Feb-00	Aa3		Aa3		Aa3		Aa3	
Delmarva Power & Light Company	A2		A2		A2		A2		A2	
Detroit Edison Company	A3		A3		A3		A3		A3	
<2>Duke Energy Corp.	Aa3		Aa3		Aa3		Aa3	Jul-97	Aa2	
Duquesne Light Company	A3		A3	Jul-99	Baa1		Baa1		Baa1	
Eastern Edison Company	WR	Sep-99	Baa1		Baa1		Baa1		Baa1	
El Paso Electric Company	Baa3	Nov-99	Ba1	Jun-99	Ba2	Jan-98	Ba3		Ba3	Jun-96
Empire District Electric Co., The	A2		A2		A2		A2		A2	
Entergy Arkansas, Inc.	Baa2		Baa2		Baa2		Baa2		Baa2	
Entergy Gulf States, Inc.	Baa3		Baa3		Baa3		Baa3		Baa3	
Entergy Louisiana, Inc.	Baa2		Baa2		Baa2		Baa2		Baa2	
Entergy Mississippi, Inc.	Baa2		Baa2		Baa2		Baa2		Baa2	
Entergy New Orleans, Inc.	Baa2		Baa2		Baa2		Baa2		Baa2	
Florida Power Corporation	Aa3		Aa3		Aa3		Aa3		Aa3	
Florida Power & Light	Aa3		Aa3		Aa3		Aa3		Aa3	Jun-96
Georgia Power Company	A1		A1		A1		A1		A1	
GPU, Inc.	Baa1*		Baa1*	Sep-99	Baa2*					
Green Mountain Power Corp.	Ba1	Apr-00	Baa3	Nov-98	Baa2		Baa2		Baa2	
Gulf Power Company	A1		A1		A1		A1		A1	
Hawaiian Electric Company, The	"baa2"		"baa2"	Dec-99	A3		A3		A3	
<3>Reliant Energy Inc.	A3		A3		A3		A3		A3	Dec-96
<4>IES Utilities Inc.	A2		A2		A2		A2		A2	
Idaho Power Company	A2		A2		A2		A2		A2	
Illinois Power Company	Baa1		Baa1		Baa1		Baa1		Baa1	Jul-96
Indiana Michigan Power Company	Baa1		Baa1		Baa1		Baa1		Baa1	
Indianapolis Power & Light Company	Aa2		Aa2		Aa2		Aa2		Aa2	
Interstate Power Company	A1		A1		A1		A1		A1	
Jersey Central Power & Light Company	A2		A2	Sep-99	Baa1		Baa1		Baa1	
Kansas City Power & Light Company	A1		A1		A1		A1		A1	
Kansas Gas and Electric Co.	Ba2	Mar-00	A3		A3		A3		A3	
Kentucky Power Company	Baa1		Baa1		Baa1		Baa1		Baa1	
Kentucky Utilities Co.	A1	Feb-00	Aa2		Aa2		Aa2		Aa2	

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Company	Current Rating	Date Changed	1999 Rating	Date Changed	1998 Rating	Date Changed	1997 Rating	Date Changed	1996 Rating	Date Changed
Louisville Gas & Electric Company	A1	Feb-00	Aa2		Aa2		Aa2		Aa2	
Madison Gas & Electric Company	Aa2		Aa2		Aa2		Aa2		Aa2	
Massachusetts Electric Company	A1		A1		A1		A1	Dec-97	A2	Aug-96
Metropolitan Edison Company	A2		A2	Sep-99	Baa1		Baa1		Baa1	
<5>MidAmerican Energy Company*	A3		A3		A3		A3	Jan-97	A2	
<11>Minnesota Power, Inc.	Baa1		Baa1		Baa1		Baa1		Baa1	Mar-96
Mississippi Power Company	Aa3		Aa3		Aa3		Aa3		Aa3	
Monongahela Power Company	A1		A1		A1		A1		A1	
Montana Power Company	Baa1		Baa1		Baa1		Baa1		Baa1	
Narragansett Electric Company	A1		A1		A1		A1	Dec-97	A2	Aug-96
Nevada Power Company	Baa1		Baa1	Jul-99	Baa2		Baa2		Baa2	
New England Power Company	A1		A1		A1		A1	Dec-97	A2	Aug-96
New York State Electric & Gas Corporation	A3		A3	Dec-98	Baa1		Baa1		Baa1	
Niagara Mohawk Power Corporation	Baa2		Baa2	Jun-98	Ba1	Apr-98	Ba3		Ba3	Apr-96
	Baa3		Baa3	Dec-98	Ba2	Feb-98				
Northern Indiana Public Service Company	A2		A2		A2		A2		A2	Feb-96
Northern States Power Co. (Minnesota)	Aa3		Aa3		Aa3		Aa3	Jul-97	A1	
<12>Northwestern Corporation	A1		A1		A1		A1	Jan-97	A2	
Ohio Edison Company	Baa1	Sep-00	Baa2		Baa2		Baa2		Baa2	
Ohio Power Company	A3		A3		A3		A3		A3	
Oklahoma Gas & Electric Company	A1		A1	Aug-99	Aa3		Aa3	May-97	A1	
Orange & Rockland Utilities, Inc.	A1		A1	May-99	A3		A3		A3	
Otter Tail Power Company	Aa3		Aa3		Aa3		Aa3		Aa3	
Pacific Gas & Electric Company	A1		A1		A1		A1	Jun-97	A2	
PacifiCorp	A2		A2		A2		A2		A2	
<6>PECO Energy Company	Baa1		Baa1		Baa1		Baa1		Baa1	
Pennsylvania Electric Company	A2		A2	Nov-98	A3		A3		A3	
<7>PP&L, Inc.	A3		A3		A3		A3		A3	
Pennsylvania Power Company	Baa1	Sep-00	Baa2		Baa2		Baa2		Baa2	
Portland General Electric Company	A2		A2		A2		A2		A2	Mar-96
Potomac Edison Company	A1		A1		A1		A1		A1	
Potomac Electric Power Company	A1		A1		A1		A1		A1	
PS Energy, Inc.	A3		A3		A3		A3		A3	
Public Service Company of Colorado	A3		A3		A3		A3		A3	Nov-96
Public Service Company of New Hampshire	WR		WR		WR	Apr-98	Ba3	Mar-97	Ba1	
Public Service Company of New Mexico	Baa3		Baa3	Aug-99	Ba1		Ba1		Ba1	Sep-96
Public Service Company of Oklahoma	A1		A1		A1	Mar-98	Aa3		Aa3	
Public Service Electric and Gas Company	A3		A3		A3		A3		A3	Jan-96
Puget Sound Energy, Inc.	Baa1		Baa1		Baa1		Baa1	Feb-97	A3	
Rochester Gas & Electric Corporation	A3		A3		A3	May-98	Baa1		Baa1	
San Diego Gas & Electric Company	Aa3		Aa3	Jun-99	A1		A1		A1	
Savannah Electric & Power Company	A1		A1		A1		A1		A1	
Serra Pacific Power Company	A3		A3		A3		A3		A3	
South Carolina Electric & Gas Company	A1		A1		A1		A1		A1	
Southern California Edison Company	A1		A1		A1		A1	Jun-97	A2	
Southern Indiana Gas & Electric Company	Aa2		Aa2		Aa2		Aa2		Aa2	
Southwestern Electric Power Company	A1	Sep-00	Aa3		Aa3		Aa3	Apr-97	Aa2	
Southwestern Public Service Company	A1	Aug-00	Aa2		Aa2		Aa2		Aa2	
System Energy Resources Inc.	Baa3		Baa3		Baa3		Baa3		Baa3	
Tampa Electric Company	Aa2		Aa2		Aa2		Aa2		Aa2	
Tennessee Valley Authority*	Aaa		Aaa		Aaa		Aaa		Aaa	
<13>TXU Electric Company	A3		A3	Dec-98	Baa1		Baa1	Jan-97	Baa2	
Texas-New Mexico Power Company	Baa3	Feb-00	Baa2	Oct-98	Ba2		Ba2		Ba2	Oct-96
Toledo Edison Company	Baa3	Sep-00	Ba1		Ba1		Ba1	Aug-97	Ba2	
Tucson Electric Power Company	Ba2	Dec-99	Ba3		Ba3		Ba3		Ba3	
United Illuminating Company	A3	Jun-00	Baa1	Apr-99	Baa3		Baa3		Baa3	
UtiliCorp United Inc.*	Baa3		Baa3		Baa3		Baa3		Baa3	
Virginia Electric and Power Company	A2		A2		A2		A2		A2	
West Penn Power Company *	A1		A1		A1		A1		A1	
West Texas Utilities Company	A2		A2		A2		A2	Apr-97	A1	
Western Massachusetts Electric Company	Baa3		Baa3	May-99	Ba2	Jul-98	Ba2	Dec-97	Baa3	Oct-96
					Ba3	Apr-98	Ba1	Apr-97	Baa2	May-96
<8> Western Resources Inc.	Ba1	Mar-00	A3		A3		A3		A3	
Wisconsin Electric Power Company	Aa2		Aa2		Aa2		Aa2		Aa2	
Wisconsin Power and Light Company	Aa2		Aa2		Aa2		Aa2		Aa2	
Wisconsin Public Service Corporation	Aa1	Nov-99	Aa2		Aa2		Aa2		Aa2	

* Senior Unsecured Rating

+ Preferred Stock Rating

WR Withdrawn Rating

<1> As of October 1, 1997

<2> Previously known as Duke Power Company.

<3> Previously known as Houston Lighting & Power Company and then Houston Industries, Inc.

<4> Formed by merger of Iowa Electric Light & Power Company and Iowa Southern Utilities Company on December 31, 1993.

<5> Formed as a result of merger between Midwest Resources Inc. and Iowa-Illinois Gas & Electric on July 1, 1995.

<6> Previously known as Philadelphia Electric Company before March 1, 1995.

<7> Previously known as Pennsylvania Power & Light Company.

<8> Formed as a result of Kansas Gas & Electric merger with Kansas Power & Light effective 3/31/92.

<9> Formed as a result of Central Illinois Public Service merger with Union Electric effective 2/27/98.

<10> Previously known as Central Louisiana Electric Company.

<11> Previously known as Minnesota Power & Light Company.

<12> Previously known as Northwestern Public Service Company Company.

<13> Previously known as Texas Utilities Electric Company

Electric Utilities Industry Outlook

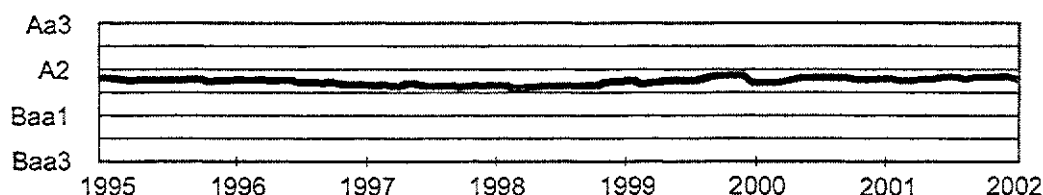
Ratings

Category	Moody's Rating
The Industry Group includes 121 Companies.	

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Rating History



Operating Statistics

Industry Average Ratios

	1995	1996	1997	1998	1999	Forecast		
						2000	2001	2002
ROE (Avg.) (%)	16.2	13.2	9.8	9.8	13.3	9.9	10.0	10.4
Operating Margin (%)	16.9	16.6	15.5	14.5	16.4	14.5	14.6	14.5
Pre-Tax Int. Coverage	3.4	3.5	3.4	3.6	3.6	3.8	4.0	3.6
RCF/Gross Capex (%)	133.8	153.1	139.1	92.8	115.4	98.9	110.0	111.2

Balance Sheet Statistics

Industry Average Ratios

	1995	1996	1997	1998	1999	Forecast		
						2000	2001	2002
Total Capital (\$ Billions)	2.9	3.2	3.2	3.1	3.3	2.7	2.5	2.2
Total Debt/Capital (%)	50.8	49.6	49.8	49.5	51.9	55.0	54.0	56.0
Pfd/Capital (%)	5.7	5.4	5.5	5.4	4.9	5.1	5.0	5.0
Common/Capital (%)	43.5	45.0	44.7	45.2	43.1	39.9	41.0	39.0

Summary Opinion

Nothing Changes, Yet Nothing Stays the Same

Since last year's Industry Outlook, the average rating in the US power industry has remained at A3, where it has been for a number of years. However, this should not be misconstrued as stability. While the average has stayed the same, the universe of rated companies has been in constant motion. Over the last 12 months, 24 companies out of the rated peer group of 121 have been upgraded, while 22 have been downgraded.

Furthermore, the very composition of the peer group has also changed dramatically, as mergers and acquisitions have superseded some familiar names, while bringing new entities into existence. Even those companies that bear the same name are today very different in terms of their lines of business, market positions, and strategic directions than they were only a year ago.

The diverse strategies adopted in response to the deregulation of the US market have moved the industry from a peer group of 121 vertically integrated, regulated electric utilities, to 121 peer groups of one. It is therefore very difficult to make broad generalizations about the direction of credit quality in this industry.

Even so, we can make the prediction that 2001 is likely to see continued ratings movement in both directions, with a bias toward the negative, as 33 companies are currently under review for upgrade or carry a positive outlook, while 66 companies are either under review for possible downgrade or carry a negative outlook. We expect that over the next year we will continue to see dramatic changes in market positions and business risk profiles as individual companies either succeed or fail at differentiating themselves from an ever changing pool of competitors.

The industry resembles general manufacturing more and more all the time. After all, power plants are manufacturing facilities for a product (electrons) that must be distributed (through wires) and sold (price + service) to retail or wholesale customers. Since it is a commodity that is being sold, one manufacturer's product is no different than another's. Therefore, those manufacturers that are likely to survive with their credit quality intact over the longer term will be those that add value to the commodity - whether through reliability standards, ancillary services, or product customization - in order to entice customers into buying their electrons as opposed to someone else's.

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The Industry Turns a Page and Finds a New List of Challenges

Looking forward, Moody's sees a number of issues taking shape that could increase overall credit risk in the industry in the next several years and again prove to differentiate winners and losers. These challenges include increasing capital expenditures to build new generating plants and comply with tightening environmental regulation, as well as growing amounts of leverage - both on and off of the balance sheet - to fund new acquisitions. They also include both the threat of overcapacity in regions such as New England and Texas, where substantial new construction is underway, and extreme power shortages in California, which has pushed the envelope for re-regulation. Layered on top of these challenges are the dis-favor the industry has suffered in the equity markets and the behavior to which such shareholder pressure has given rise.

Power companies have taken a variety of steps to cope with this growing list of concerns. Each company in the power sector is seeking its own market niche and source of competitive advantage. In Porter's competitive strategy vernacular, these companies, which are losing their monopoly status, must for the first time confront the five forces of: buyer power, supplier power, barriers to entry and exit, threat of substitution, and rivalry among competitors. The domain may be regional, national or international. Strategies include:

- remaining vertically integrated in the home state where regulation allows the utility to do so;
- remaining vertically integrated in the home state while expanding wholesale revenues through generation and merchant trading in other states;
- becoming a multi-state unregulated merchant trading and generating company; or
- making regional combination electric and gas distribution plays.

In pursuit of one or more of these strategies, corporate restructuring continues unabated, with new complex organizations being formed in the wake of mergers and acquisitions, asset spin-offs and sales, and divisional IPOs. In response, once straightforward peer group financial comparisons have given way to a more sophisticated analysis that considers the complex interplay of diverse business risk profiles under the increasingly common holding company structure.

These are the issues we will be exploring in this year's industry outlook.

WHETHER OVER OR UNDER, CAPACITY CONCERNS A MAJOR CREDIT ISSUE

Going into 2001, one of the most important credit issues we see for those companies still engaged in the generation side of the business is the manner in which they manage their overall levels of capacity. This includes their ability to fund a dramatic increase in capital expenditures for new plants following a decade of underinvestment and to restore reserve margins to more comfortable levels without generating a new wave of overcapacity. It also includes their ability to integrate newly acquired generating assets and operate them more efficiently, and to avoid the political backlash of lingering power shortages in some regions.

With these challenges in mind, we see three areas in which over or under-capacity situations could begin to pressure credit ratings if they are not adequately dealt with. The first two areas are New England and Texas, where planned capacity additions exceed the regions' peak demand and where transmission constraints limit the ability of local utilities to wholesale their excess out of region.

The third area is California, where power shortages during the summer of 2000 have led to requests for local price caps (already seen in East Coast markets) and could lead to pressure for re-regulation of the industry more broadly at some point. As gas prices continue to rise, skewing the economics of new gas-fired generating plant; as environmental concerns make building coal plants problematic; and as transmission constraints continue to limit the wheeling of power from areas of oversupply to those in need, the supply problems leading to higher generation prices will not be easily resolved. While we believe that deregulation will eventually play out and the market will find some degree of equilibrium, there is a rocky road ahead in the next few years.

PAST LACK OF INVESTMENT SPURS NEW CAPITAL EXPENDITURE NEEDS

Given the lack of investment in generation capacity over the past decade or so and strong growth in electric demand, reserve margins throughout the country have declined to record low levels, necessitating a return to new construction that will elevate capital spending in the industry. Chart 1 shows reserve margins from 1989 through 1998.

Every region in the US has seen rapid declines in reserve margins, with the West (WSCC), the Midwest (ECAR and MAIN), and the Mid-Atlantic regions (PJM) seeing the sharpest decline.

The majority of this capacity will be provided by new construction of power plants. Since most of the existing fleet of generating plants are base load, most of the new construction dollars will be spent building peaking plants and combined cycle natural gas fired plants. Table 1 depicts the amount of new megawatts announced by region through June 30, 2000, while Chart 2 depicts expected reserve margins through 2005.

Table 1

Region	Additional MW
ECAR	4,598
ERCOT	13,822
MAAC	4,564
MAIN	5,252
MAPP	995
NEPOOL	7,488
SERC	16,380
SPP	6,190
WSCC	9,355

* All except ERCOT and NEPOOL by Hagley Bailey
 ** ERCOT and NEPOOL data by PACE Global Energy Services

Chart 1

Historical Total Electric Utility Industry Reserve Margins

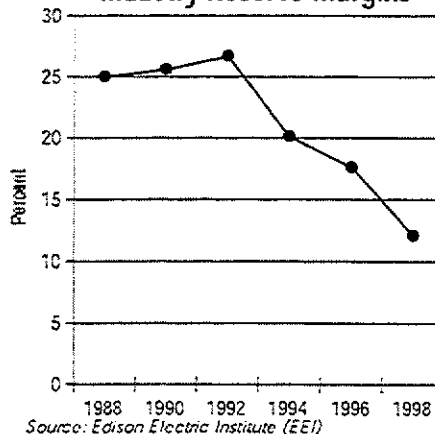
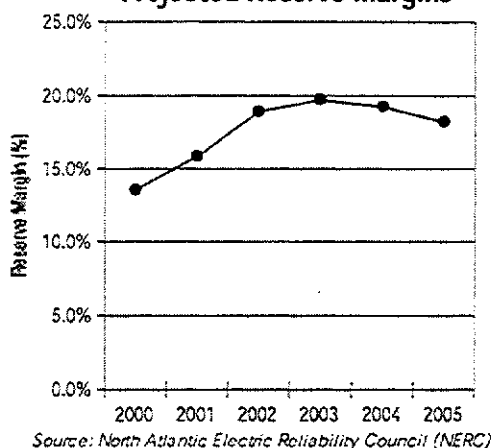


Chart 2

Projected Reserve Margins



The industry's current capacity constraints stem from the consistent decline in investment in power generation since the mid-to-late 1980s. Beginning in the '80s, utilities became cautious about partaking in another round of traditional construction, having been "second guessed" by regulators on their past programs. Additionally, virtually every region of the country had some degree of excess capacity, with the West, Texas, and portions of the Midwest having among the greatest surplus. In fact, some companies like Public Service Company of New Mexico had reserve margins that exceeded 70%. The need for new construction was further obviated by the emergence in the mid-1980s of new generators armed with contracts issued under the Public Utility Regulatory Policies Act (PURPA) and a focus on developing small-to-intermediate sized plants throughout the country.

By the mid 1990s, the supply of new PURPA contracts had dried up and talk among developers and utilities centered around the new world of competition. Most utilities were primarily concerned with receiving reasonable recovery of their past investments to minimize the level of their stranded costs (which, for the most part, they have achieved with tremendous success). The developers, for their part, also had concerns about how deregulation might play out and likewise held off on new projects. Instead of building domestically, many of the developers, some of them affiliates of utility companies, used their returns generated from PURPA contracts to dabble internationally in infrastructure related projects.

During the process of industry restructuring, which began around 1994 and continues for most segments of the industry, the US economy has enjoyed strong economic growth. Since the early 1990s, gross national product has increased by 3.2%¹ annually, and electric consumption has increased by 2.1%² annually.

In addition to core economic growth, electric consumption has been fueled by the nation's increased use of computer related and electronic items. Clearly, more homes and more businesses actively use computer-related technology on a regular basis. With the advent and growth of the Internet, this trend is likely to continue to promote electric consumption growth that surpasses growth in the gross national product by a wide margin.

NEW ENGLAND AND TEXAS REGIONS FACE OVERCAPACITY RISK

Ironically, for two regions of the country, New England (NEPOOL) and Texas (ERCOT), the possibility of an overbuild still exists. In NEPOOL, for instance, according to various market consultants, approximately 7,488 mw of capacity has been announced for a region whose peak demand is around 25,000 mw. Similarly, in ERCOT, approximately 13,822 mw has been announced relative to the peak demand of 56,500 mw.³

While Moody's does not believe that all of the capacity announced in both regions will be built, we do expect both regions to undergo a period of excess capacity.

Both NEPOOL and ERCOT have at least one common trait that makes generators in these regions more vulnerable from an investor's standpoint. Both regions have limited transmission import and export capability. In NEPOOL's case, it is difficult to move power into NEPOOL because of transmission constraints, while ERCOT operates almost independently from any other region as there are few interconnects. Consequently, the power that is generated in these regions is more likely to stay in these regions.

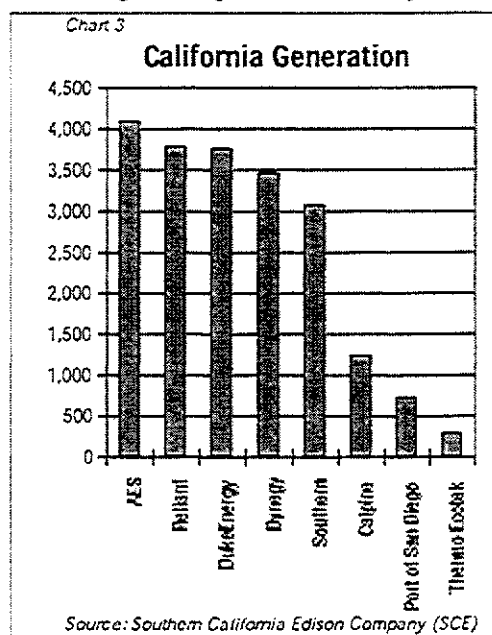
A similar phenomenon exists in the Northern region of Chile, known as the SING, which is instructive as to what can happen in circumstances such as these. The region is fairly secluded from other parts of Latin America and has a heavy concentration of some of the world's largest copper producers, all of which are very large energy users. Transporting electricity into and out of the region is problematic due to the mountainous terrain. With the need for significant new capacity to meet the demands of these high load copper customers, numerous projects have come or are expected to come on line. Capacity additions have exceeded peak demand nearly fourfold. Since it is difficult to export electricity out of the region, the excess capacity situation is expected to persist for many years, depressing prices for generators. In fact, prices have dropped by 38.6% since 1991 and are expected to remain similarly depressed for at least the next five years.⁴

OPERATING EFFICIENCY GAINS NEEDED TO RECOUP PREMIUMS ON GENERATING ASSET PURCHASES

Another phenomenon that is impacting power markets is the fact that generating assets have changed hands fairly rapidly within the last two years. Since 1998, approximately 55,669 mw of electric capacity has been sold, with buyers paying on average \$410 per megawatt.⁵ Among the biggest buyers are affiliates of utilities such as Edison Mission Energy, Reliant Energy, Southern Energy, Inc., NRG Energy, and PG&E Generating Company.

In more and more regions around the country, ownership is being transferred and the new owners, many of whom have paid large premiums for 30-year-old assets, are operating the assets differently than their previous owners. For instance, in California prior to 1999, the three large investor-owned utilities controlled the bulk of the generation within the state. Now, those same assets are owned by eight different entities, as depicted in Chart 3. Similarly, multiple owners of generation exist in such partially deregulated markets as Illinois, Pennsylvania, New York, and throughout New England.

Under new multiple ownership, competitive markets are developing and assets are being operated with a focus on efficiency and profit maximization. Capacity factors and availability factors are generally higher under the new owners and assets are being optimized to operate when prices are the highest.



¹ Bureau of Economic Analysis (BEA)

² Edison Electric Institute (EEI)

³ North American Electric Reliability Council (NERC)

⁴ Empresa Electrica del Norte Grande S.A. (Empresa)

WEATHER ADDS TO WOES IN CAPACITY CONSTRAINED CALIFORNIA

As with any new market, initial implementation can be rough and surprises can occur. Electricity is no exception. Each year the market seems to have a different area of the country that is operating outside of people's expectation. During the last two years, attention has been directed towards the volatility in prices that occurred in the Midwest and how the volatility created problems for companies involved in marketing and trading. To some extent, companies have responded by adding resources in the Midwest and by tightening credit and trading standards with counterparties.

This past summer, the western US and in particular, California seems to be center stage. Prices in the California Power Exchange (PX) and throughout the West have soared to record levels in the past year, due in part to increased regional demand for electricity and a tightness in regional new capacity.

Of note is the role that weather has played in this marketplace. For instance, the spike in prices throughout the West can be partly attributed to the warm weather that has occurred this past summer. Although regional demand is strong in part due to a strong economy, this has been the case for several years. The element that is different in 2000 versus previous years is weather. In contrast, the relatively stable prices experienced this past summer in the Midwest and in the Mid-Atlantic can be attributed to cooler weather in the region.

RE-REGULATION SURFACES IN CALIFORNIA AND MAY EFFECT OTHER MARKETS

This past summer, customers of San Diego Gas and Electric (SDGE), the only utility that is operating in a fully deregulated market, experienced substantial volatility in the energy component of their bill. Under deregulation in California, all customers have had choice of power supplier since 1998, and since June 1999, SDGE customers paid the market price for electricity as determined by the PX. SDGE is responsible for securing the supply for these customers and acting as a pass-through provider for them by buying supply from the PX and passing the costs along to customers without any additional margin.

During 1999, this arrangement worked well for all parties as the mild summer in the West kept average prices in the PX fairly stable. However, during the summer of 2000, PX prices soared to record levels, and SDGE customers witnessed their average bill triple and in some cases, quadruple.

In response to this "crisis," the California legislature re-regulated the San Diego market in order to stabilize prices. Energy prices will be capped at 6.5 cents and SDGE will fund the difference between the market price paid in the PX and the 6.5 cents. The legislation gives SDGE the opportunity to recover the costs over a reasonable, but undetermined timeframe. Additionally, the legislation freezes rates in San Diego until the end of 2002, with the option of extending the rate freeze another year, if adequate capacity additions have not come on-line.

It remains to be seen what impact the San Diego situation will have on deregulation. A number of states have pointed to California as another reason to go slow. The Federal Energy Regulatory Commission (FERC) is investigating the reasons behind the wholesale price spike in California, and other groups have called for federal intervention to curb wholesale prices in New England and New York. The possibility of some form of federal legislation will increase with a new President next year, particularly if the federal government believes (correctly or incorrectly) that some form of federal regulation can prevent a San Diego situation from reoccurring.

It is, however, safe to say that the deregulation genie is out of the bottle. Twenty-six states have enacted some form of restructuring law, and companies in these states have legally separated their generation and transmission businesses, often selling their generating assets or, in some cases, spinning them off.

What remains the big unknown in this process is the view of the customer. Does the customer want to choose his/her electric service supplier? Different classes of customers in different parts of the country may have very different responses to that question, but it remains central to the speed at which transition continues on a national basis.

It is doubtful that San Diego area residents would have embraced the notion of competition if they knew in advance that there would be little choice for them and that the price that they pay for the same service could triple on a year-to-year basis. Alternatively, the San Diego example may end up being an isolated case or may serve as a catalyst for market-based solutions for customer choice with relatively stable prices.

Rising Air Quality Standards Add to Generation Costs

Moody's always considers the costs of meeting known and likely environmental standards in assigning ratings, and we expect that these costs will increase over the next few years as stricter standards are passed to address global environmental problems.

The issue is a significant, but manageable one in the US. The US EPA's tighter standards are expected to add significant near-term costs for those companies with predominately coal-fired generating fleets, just as competition in generation is increasing. However, entire regions tend to have a similar concentration in generating technology because of the regional availability of coal as a fuel source. Regional power prices are therefore likely to reflect the recovery of those costs without creating a competitive disadvantage for any one supplier relative to others in the region.

Attention to air quality and other environmental issues is increasing around the globe. Many countries use coal as a major, and often primary, source of electric generation because of the ready availability of this fuel. In the US, the focus is no longer solely on sulfur dioxide (SO₂) emissions as was the case after the Clean Air Act Amendments of 1990. Rather the US Environmental Protection Agency is now pressing for much lower nitrogen oxide (NO_x) emissions to reduce ground level ozone and has also directed its attention more recently to mercury emissions. In addition global negotiations through successive summits are attempting to reduce carbon dioxide emissions, a pollutant believed to be a primary cause behind the shrinking of the protective stratospheric ozone layer.

Pressure is only likely to increase through this presidential election year, as both candidates are likely to put environmental pressure on the industry. This could lead, at a minimum, to increased expenditures on NO_x removal equipment. In the extreme, it could effect the ability of coal burning utilities to continue optimizing their coal assets, although the recent pricing issues attached to gas have actually given a boost to coal plants. An adjunct issue is the extension of nuclear licenses on existing plants, which would help the air quality issue, but is not devoid of environmental hazards.

Political action is required to reduce environmental pollutants. Emission reduction is a policy goal, not an economic goal. Poorer health due to higher pollution is an "external" cost to electric generation (as one source of air pollutants) that is "internalized" through government intervention. Both regulated and competitive generating regimes manage only to near-term environmental standards because of pressures to minimize the costs of generation.

Estimating the costs of air quality improvement is difficult. The science of measuring health effects and tracing the damage to specific causes is not precise. Conflicting political pressures - for example dealing with the potential impact of actions on the mining or automobile sectors, wanting the benefits of low energy prices, and improving public health - add to the difficulty.

The array of technological choices to reduce emissions entails a tradeoff between capital expenditures and additional operating costs. Therefore, Moody's examines the ability of any generating company or project to handle the "worst case" scenario. Those generators that maintain the better coverage ratios even under the downside case present a greater degree of financial flexibility, which often corresponds with higher ratings.

EPA PRESSURES U.S. SECTOR ON NO_x EMISSIONS

The U.S. EPA is pushing on numerous fronts to impose tougher NO_x standards in particular. The agency proposed an 85% reduction in NO_x emissions from 1990 levels and called for affected states to develop State Implementation Plans (SIP calls) to address the regional transport of ozone. NO_x is a precursor of ground level ozone.

As an 85% reduction was viewed as extremely costly and would likely affect both energy prices in the region and employment, many states countered with plans to meet a 65% reduction target and commenced legal battles against the higher standard.

The EPA directed the Justice Department to file a lawsuit against 22 utilities, claiming they had violated the Clean Air Act by making improvements to their plants and not installing state-of-the-art emission control technology, as required by the CAA. The utilities countered that their expenditures on their plants involved normal maintenance and did not add to capacity. If the EPA is successful, fines to the utilities could be substantial.

States downwind of the emissions used their ability to petition the EPA to act against other polluting states and filed Section 126 petitions in August 1997. The EPA granted four of these states' petitions.

The legal pressures to comply rose once again in March of this year when a Federal Court upheld the EPA's authority to issue the SIP calls. The EPA did extend the deadline for compliance 13 months to May 31, 2004. The states must present their plans to effect this reduction to the EPA this fall.

M&A Continues to Produce Event Risk

In addition to the risks posed by uncertain supply/demand dynamics in a deregulating market and the potential costs of tightening environmental standards, event risk remains a recurring theme. US electric companies continue to acquire each other, as well as other utilities engaged in local gas distribution, water companies, or even telecommunications providers. In addition, the US electric companies themselves have also become acquisition targets, increasingly of non-US firms attracted by the stable US economy, supportive regulation, and consolidation opportunities.

As stock prices have lagged, these new business combinations have become increasingly hard to fund without compromising credit quality. Utilities have responded with the sale of some assets to finance the purchase of others --creating a spin-off cycle that has further altered business risk profiles --and with more off-balance-sheet financing -- which to varying degrees is often added back on to the balance sheet for the purposes of credit analysis.

Upstream/Downstream Integration in Latest Gas Combinations Balance Growth/Stability

In the three years since the first large-scale convergence mergers between electric and gas utilities, many companies have moved from a pure upstream (production) or downstream (distribution) focus to an integrated portfolio management strategy across business lines. Within this model, the upstream sectors provide growth opportunities, while the downstream businesses provide stability - striking a balance between the needs of shareholders and fixed-income investors. However, this strategic fit aside, the incremental leverage incurred in these mostly debt-financed transactions have often resulted in downgrades for the acquiring electric utilities.

As we have written in related publications, convergence of the electric and gas industries follows one of two models: upstream or downstream. The upstream model is an offensive one that heightens risk in order to capture return for the company's growth-oriented shareholders. It is predicated upon opportunities to grow revenues in unregulated wholesale markets, to move into competitive businesses, and to expand outside of the traditional service territory. These opportunities may be global in reach and scale and are predicated upon power trading and marketing opportunities.

The downstream model, in contrast, does not seek new ground, but rather attempts to protect the "home turf". The downstream business strategy concentrates on less risky distribution, which provides more stable cash flows for debt service. (See our December, 1999 Rating Methodology: Methodology Evolves in Rating Electric and Gas Company Combinations, for more on these models and their rating implications.)

Under the old upstream model, growth of unregulated wholesale revenues is predicated upon success in power marketing and trading. With varying degrees of admiration, companies look to Enron Corporation as the leader to emulate in whole or in part. Enron's new merchant trading model focuses on utilizing parts or all of its four core competencies -- project design and construction, management of assets, trading and risk management, and financing - in all of its businesses. Moody's views Enron's new business strategy as analogous to an energy merchant bank, which, absent proper controls, could pressure ratings.

Under the new merchant trading and portfolio management model, TXU follows a strategy as depicted in Figure 1 on page 14. The company builds upon two compatible, complementary streams--a portfolio of competitive energy businesses and regulated energy-delivery wires and pipes businesses. The regulated energy-delivery businesses--the functions of delivering natural gas and electricity--contribute to market presence, generate significant cash flows, and present the opportunity for earnings growth. The portfolio management function keeps the portfolio supply and demand positions balanced and provides market information to enable the company to operate in rapidly changing markets. It determines when to acquire or shed assets and when to enter contracts or exit them. The competitive business model now drives growth in Europe, Australia and the US and the company's conservative implementation of their model has helped maintain ratings at consistent levels.

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